

REMARKS/ARGUMENTS

The previously submitted declaration appears to be missing from the record. As such, Applicant respectfully requests reconsideration of the claims and removal of the finality of rejection in light of the declaration which has been submitted once again. Additionally, the claims have been amended to specifically limit the bacterial species to *Pasteurella multocida*.

Claim Rejections – 35 USC §102

The Office Action dated August 20, 2009, reiterated the rejection of claims 1-5, 9-12, 21-25, 35-38 and 41-43. In light of the currently amended claims, the previously made rejections should be moot since the Anderson reference does not disclose each and every limitation. The Andersen reference is limited to *E. coli*. As the current claims are now directed to *P. multocida*, the reference is no longer applicable.

Claim Rejections – 35 USC §102 (with 103 in the alternative)

The Office Action also rejected claims 1-5, 8-12, 18-19, 21 – 25 and 35- 45 under 35 USC §102(a & e) as being anticipated by, or in the alternative, under 35 USC 103(a) as being obvious over Mahan. Applicant respectfully requests that the examiner reconsider the declaration that was previously missing from the record, but which is resubmitted with this response.

As evidenced by the attached declaration of Mark Lawrence, *dam* activity was not even known to exist in *Pasteurella multocida* until it was discovered by the Applicant. The declaration of Mark Lawrence shows that the presence of the *dam* gene in *Pasteurella multocida*

was first discovered by the Applicants in 1999. The earliest GenBank entry for *P. multocida* *dam* is August 2003, and was submitted by Applicant. From the declaration of Mark Lawrence, it is apparent that the existence of the *dam* gene would not have been known to Mahan, and, therefore, any conjecture by Mahan about *Pasturella* bacteria having a *dam* gene is simply a guess and could not be the basis of an enabling disclosure.

In response to the declaration, the Office Action pointed to the reference by May et al (PNAS Vol. 98, pp 3460-3465, 2001), and suggested that the *Dam* genes were previously known. Applicant respectfully points out that the May article does not even mention the *dam* gene. The statement in the specification which was referenced by the Office Action was simply intended to indicate that the genome of *P. multocida* had been sequenced. It does not state that May already knew of the presence of the *dam* gene, and, in fact, the declaration and evidence resubmitted show that the May article was published after the Applicant had discovered the *dam* gene.

Finally, Mahan does not disclose all of the limitations claimed in the present application. Specifically, Mahan only refers to unmodified pathogenic bacteria and to bacteria that is modified to regulate *dam* expression. Because the claim limitation “comprising altered DNA adenine methylase (Dam) activity such that the bacteria are attenuated” is not suggested by Mahan, the Mahan reference does not anticipate the claim. In fact, a *prima facie* case for obviousness could not be made on the basis of Mahan because the claim limitation is not even suggested.

CONCLUSION

In view of the above, it is submitted that the claims and application are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance of the claims at an early date is solicited. Should the Examiner have any suggestions to place the application in even better condition for allowance or feel that issues may be best resolved by personal or telephonic interview, Applicant invites the Examiner to contact the undersigned representative at the number below.

Respectfully Submitted,
Butler, Snow, O'Mara, Stevens & Cannada, PLLC

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